

W.
N. J. Machine Shop Building
South 2nd Street
Clinton
Clinton County
Iowa

HAER No. IA-14

HAER
IOWA,
23-CLINT,
2-

REDUCED COPIES OF MEASURED DRAWINGS

ADDENDUM
P.L. 86-1...

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD
W. J. YOUNG COMPANY MACHINE WORKS

HAER
IOWA,
23-CLINT,
2-

IA-14

Location: 75' North of 10th Avenue S. and 1st Street to the river,
Clinton, Clinton County, Iowa.
Geographic Location Code: 15
Latitude: 41° 50' North Longitude: 90° 11' 30" West

Present Owner: W. J. Young Company (Robert E. Evans, President)

Present Occupant: The Clinton Herald, Newspaper.

Present Use: Warehouse storage of newsprint.

Statement of Significance: The W. J. Young Company machine shop building is a two-story industrial structure situated on the Mississippi River in Clinton, Iowa. The building possesses local historical significance because of its direct association through the second half of the Nineteenth Century, with the lumber industry in Clinton.

Of the three major mills along Clinton's riverfront, W. J. Young's sawmill operation was the largest and most productive between the years 1859 and 1897. The site of the machine shop marks the northern edge of the old "Lumber District" within the city. The building, itself, is one of only two remaining structures which bear witness to an industry that provided employment for a large portion of Clinton's early population.

Constructed in 1888, the shop building could be characterized as "vernacular architecture". The obvious attention given to detail and proportion lend a dignity to the structure not common in other buildings of a similar utilitarian function. Located on its original site, the W. J. Young Machine Shop retains, almost entirely, its original design, and is a fine example of Nineteenth Century industrial structures.

PART I. HISTORICAL INFORMATION

A. Physical History:

1. Original and subsequent owners: The machine shop building was constructed in connection with William John Young's sawmill operation. Between 1859 and 1897 Young's lumber operation along the Clinton riverfront accounted for 1.7 billion board feet of lumber and 7.5 million shingles, making it the largest and most productive mill complex

between Minneapolis and St. Louis. The machine shop building was probably constructed in 1888 along with the rebuilding of the mill following a devastating fire. W. J. Young was very proud of his sawmills and was conscious of improvements in mill machinery to the extent of constantly replacing older machinery with better equipment. He also encouraged his shopmen and machinists to be inventive in the hope that an innovative improvement in his mill machinery would be the result. An inventory of the machine works done in 1893 (Young papers, box 193) and included in Appendix A shows that the shop was equipped to a greater extent than necessary for repair work only. The sawmills closed in 1896 with the death of W. J. Young.

2. Date of erection: 1888.
3. Architect: No architect appears to have been associated with the shop building. The structure was probably built by construction crews working for the W. J. Young Company.
4. Alterations and Additions: There are no major alterations to the building except for the removal of a shed roofed structure from the northwest corner of the shop. That shed apparently served as a blacksmith's shop according to notations on the Sanborn maps dated 1890. Evidence of the shed alteration can be readily observed in the photographic documentation of the shop. Windows within the outline of the shed have been bricked up on the exterior. There has also been a reduction in the height of the chimney at this corner of the building. Early photographs indicate the chimney was much higher than its present dimension.

B. Sources of Information:

1. Old Views: "Views of Clinton" (photo pamphlet) Clinton, the Clinton Herald, n.d., (ca. 1900). (State Historical Society of Iowa.)
2. Bibliography:

Allen, Lucius P., The History of Clinton County, Iowa. Chicago, Western Historical Company, 1879.

Atlas of Clinton County, Iowa. Clinton, Harrison and Warner, 1874.

Sieber, George Wesley, "Sawmilling on the Mississippi: The W. J. Young Lumber Company, 1858 - 1900", PhD thesis, University of Iowa, 1960

Wolfe, P.B., History of Clinton County, Iowa. Indianapolis, B.F. Bowen & Co, 1911.

The W. J. Young papers, Special Collections, University of Iowa Library, Iowa City, Boxes 193, 194, 195.
3. Maps: Sanborn Fire Insurance Maps, April 1885, July 1890, May 1897.

PART II ARCHITECTURAL INFORMATION

A. General Statement:

1. Architectural character: This is a fine example of Nineteenth Century industrial buildings.
2. Condition of Building: Good

B. Description of Exterior:

1. Over-all dimensions: The building is about 40 feet wide (three bays) and 76 feet long. The longitudinal elevations are divided into 5 bays by brick pilasters. It is two stories high.
2. Foundations: Rock faced native limestone. The top of the foundation forms a water table at the elevation of the grade floor. Little of the foundation beyond the water table is visible except on the east side, closet to the river, where the land drops to water level and as much as 8 feet of the foundation is exposed.
3. Wall construction, finish and color: Brick laid in running half bond. A band of arcaded corbel tables extends around the top of the walls between pilasters.
4. Structural system, framing: Brick exterior bearing walls with pilasters support modified timber trusses. The trusses support the roof structure through secondary timber beams, and they support the second floor by tension rods suspended from the truss through the floor and anchored to secondary longitudinal beams under the floor joists.
5. Chimneys: There is one chimney at the northwest corner of the building.
6. Openings:
 - a. Doorways; doors and shutters: The main entrances to the structure are located on the south wall. The center bay contains a large double door on the first story and a double loft door on the second with an exposed timber beam above for assistance in hoisting. A single passage door is located in the adjacent bay to the west. Double strap iron, hinged shutters completely cover all openings. The shutters as well as the interior doors are all tin-clad. The frames are also covered with tin. All masonry openings are topped with segmented arches.
 - b. Windows and shutters: Wooden double-hung windows have tin-clad exterior shutters and frames. The masonry openings are segmentally arched with smooth stone sills.

7. Roof:

- a. Shape, covering: Roof is of low pitch, shed type sloped to the east with a high parapet along the west and stepped parapets on the north and south ends. There is a smooth bituminous surface over the wood deck.

C. Description of Interior:

1. Floor plans:

- a. First floor: This floor provides a large clear span area with suitable flexibility for locating machine work stations. The passage door in the southwest corner opens near the stairs leading to the second floor.
 - b. Second floor: The plan is open except for the stairway enclosure, a small storeroom in the southwest corner and used for brass storage and a small office in the southeast corner of the second floor. There is evidence that an original partition wall (see plan sheet) has been removed.
2. Stairways: The main stair is an open-well, straight run stair of lumber treads and stringers.
 3. Flooring: The first floor is slab-on-grade concrete. The second floor is wood boards (probably yellow pine) over 3" x 12" wood joists at 16 inches on center. The under side of the floor and the joists are covered with tin.
 4. Wall and ceiling finish: Walls are painted brick and wood ceiling system is entirely tin-clad.
 5. Doorways and doors: Interior doors are tin-clad with solid wood cores approximately 1 inch thick. The two large access doors at each end of the first floor slide on an overhead track along the wall. All other doors are hinged.
 6. Lighting: There are a few single bulb incandescent light fixtures located mainly on the first floor. There is evidence of a gas-jet fixture in the office on the second floor. Although most of the gas piping has been removed, there is evidence of bracket mounted wall fixtures between most of the windows on the first level, thus the building was probably originally illuminated by gas.
 7. Heating: The only evidence of heating is in the second floor office. Several exposed steam lines form a rudimentary radiator. There is evidence of a large, insulated steam line suspended below the first floor ceiling along the interior perimeter of the wall at the south end only. Most of the piping has been removed.

D. Site:

1. General setting and orientation: The building faces south with the longitudinal east elevation facing the river front.
2. Outbuildings:
 - a. The sawmill complex with which the machine shop was associated has disappeared completely. There is, however, a clear outline of the one-story blacksmith shop on the north half of the west wall. An examination of that wall reveals a parapet wall along the north with masonry pockets for wood roof beams extending to the west.
 - b. Walks, enclosures: There was a wooden catwalk along the riverfront (east) side, at the approximate elevation of the grade floor line. All that remains of the walkway are the supporting small gauge railroad rails imbedded in the limestone foundation wall.

Prepared by Richard Caruth
May, 1977

PART III. PROJECT INFORMATION

These records are part of the documentation made during May, 1977 by Powers and Associates in cooperation with the Iowa State Office of Historic Preservation. The project was commissioned by the Rock Island District of the U.S. Army Corps of Engineers.

The project was under the general supervision of Roy Neumann, A.I.A. Project manager was Richard Caruth. Measured drawings for the project were prepared by Max Miller. Photographer Hans Muessig made the documentary photographs.

APPENDIX A

Inventory of Machinery in Machine Shop

- 1-28" Swing 14' Lathe, With Complete Fittings & Counter Shaft. Mfg. By
D. L. Harris & Co. Springfield, Mass.
- 1-60" Swing 24' Iron Sheave. Lathe, With Complete Fittings & Counter Shaft.
Mfg. By The New Haven Mfg. Co. New Haven, Connecticut.
- 1-26" Swing 16' Iron Sheave Lathe, with Complete Fittings & Counter Shaft.
Mfg. By Putnam Machine Co. Fitchburg, Mass. Patented July 21, 1863.
Bought of C. L. Rice & Co. Chicago, Ill.
- 1-18" Swing 10' Iron Sheave Lathe, With Complete Fittings & Counter Shaft.
Mfg. By F. E. Reed, Worcester, Mass. Bought of J. A. Fay & Co. Chicago,
Ill.
- 1-30" x 12' Bed Planer with 20' Iron Stand. With Complete Fittings & Counter
Shaft. Mfg. By the New Haven Mfg. Co. New Haven, Connecticut.
- 1-13" x 5' Bed Planer, with Iron Stand, Complete Fittings & Counter Shaft.
Mfg. By Putnam Machine Co. Fitchburg, Mass.
- 1- 8 x 12" #4978 Atlas Slide Valve Engine, with 46 x 8", 54 x 6" Fly Wheels,
Mfg. By The Atlas Engine Works Indianapolis, Indiana.
- 1-Slotting Machine, Pat. 11/22/87. Mfg. By Morton Mfg. Co. Romeo, Michigan.
- 1-48" - 54" Swing Press Drill. Mfg. By The Niles Tool Works, Hamilton, Ohio.
- 1-Nut & Bolt Machine, Merriams Pat. 12/26/76. Mfg. By H. E. Brown & Co.
East Hampton, Connecticut.
- 1-14" - 12" Swing Press Drill.
- 1-15" Emery Wheel Arbor with Iron Stand & Adjustable Clamp. Mfg. By The
Standard Tool Co, Cleveland, Ohio.
- 1-18" Emery Wheel Arbor, With 12 x 4" Emery Wheel.
- 1-Press for Straightening Shafting.
- 1-Howe Rolling Mill 5000# Scale. Mfg. By The Howe Scale Co. Chicago, Ill.

1-Circular Overhead Crane, with 13' Beam, 1 Set 2 Ton Chain Tackle Blocks
Mfg. By Edwin Harrington & Son Philadelphia, Penn.

1-Circular Overhead Crane, with 12' Beam & 1 Set 1 Ton Chain Tackle Blocks,
Mfg. By Edwin Harrington & Sons, Philadelphia, Penn.

Machinery Blacksmith Shop

1-#143 12x12" Steam Hammer, Pat. 1887. Mfg. By David Bell, Buffalo, New York.

1-Combined Shears & Punch. Pat. 1/10/1882. Mfg. By The Long & Allstater
Co. Hamilton, Ohio.

1-44" x 6" Grindstone, with Iron Stand, 1-26x6" Wood Rim Iron Centre Pulley
& Stand Complete.

1-42" Emery Wheel Arbor, with Iron Stand & 30" x 2" Emery Wheel. Mfg. By
The Northampton Emery Wheel Co., Leeds, Mass.

1-Bolt Machine.

1-11' Crane

1-#3 Sturtevant Blower.

1-40" Round Forge with 16' -16" Pipe & Cone.

1-42" x 50" Square Forge with 22'-16" Pipe & Cone.

Shafting In Blacksmith Shop

22'-2" Shafting.

8'-1,1/4" Shafting.

1-Set 8" Couplings.

2-16" x 4" Hangers.

3-12x6" Hangers.

1-26x3" Iron Pulley.

1-12x6" Iron Pulley.

56'2"-6" Single Leather Belting.

1-20x12" Iron Pulley.

22'8"-4" Single Leather Belting.

1-8x6" Iron Pulley.

19'8"-2" Single Leather Belting.

SOURCE

The W. J. Young papers, Special Collections, University of Iowa Library,
Iowa City, Iowa.

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PHOTOGRAPHS

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